

## **ABSTRACT**

*This research do PT. Bintangdelapan Mineral (BDM) at Kabupaten Morowali, Province Sulawesi Tengah. Nickel mine using surface mining system with open pit method. BDM will enlarge the mine to blok 5 a pit 1 for request complete market will nickel, before doing mine must stripping overburden technic plan. Grade zone OB with COG < 0,77 % Ni and grade zone Waste with COG < 0,99 % Ni, to judge as an overburden.*

*The calculation result, total volume overburden at blok 5 a pit 1 = 1.193.283 BCM , while volume zone OB = 1.332.500 BCM and volume zone Waste = 157.500 BCM. Technic of stripping overburden at blokn 5 a pit 1 plant doing in this away class from high contour to low contour.*

*Plan of geometry slope pit limit OB and Waste have bench height = 10 m with face angle = 63° and overall slope = 50°. Plan of geometry slope disposal have bench height = 10 m with face angle = 40° and overall slope = 34°.*

*Mechanics tool to need is load tool Excavator Back Hoe Volvo EC 460 CL with capacity production 323,46 BCM/hours amount to 4 units and haul tool Articulated Dump Truck (ADT) Volvo A 40 E with capacity production 83,36 BCM/hours amount to 14 units.*